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09/909,206	07/20/2001	Michael D. Kotzin	CSI0422	9769

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EXAMINER

BALBAN, SIMEON M

ART UNIT

PAPER NUMBER

2686

2

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,206

Applicant(s)

KOTZIN ET AL.

Examiner

Simeon Marc Balban

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1 - 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Spaur et al. (Hereafter referred to as Spaur) (U.S. Patent Number 5,884,193).

Regarding **claim 1**, Spaur discloses a method for dynamically selecting communication services from a plurality of service providers capable of providing communication services to a mobile wireless communication device, comprising:

“establishing communication objectives (i.e. applications) at the device (10) for corresponding communications to be executed by the device (10);” as disclosed by,
“With reference to FIGS. 2 – 4, additional details of the analysis involving the channel selection process.....FIGS. 2A - 2B illustrate a flow diagram of steps taken in selecting a network channel (i.e. communication service). The description of this flow diagram will be made in the context of a particular application (defined as application A) (i.e. communication objective) that has certain application requirements (i.e. factors or characteristics), as set out in the chart of FIG. 3. In particular, application A requirements include a number of factors with quantitative values. These factors are bandwidth, security, packet loss, packet latency, packet jitter and cost.....As indicated

in FIG. 2A, the application requirements for application A are obtained in accordance with step 100" (see Figures 1 – 3 and column 10 lines 41 – 61)

Spaur discloses, "As indicated in FIG. 2A, the application requirements for application A (i.e. communication objective) are obtained in accordance with step 100 and the corresponding operating parameters for each network channel 34a-34n (i.e. communication services) are obtained at step 104. The link selector 64 checks or compares each application requirement with the corresponding parameter, for each such network channel, at step 108....In view of the given weightings, the slower, less expensive channel 34b is deemed to be more suitable for conducting the information transfer associated with application A." (see Figures 1 – 4 and column 10 line 60 – column 12 line 12), which directly reads on "selecting one of the communication services (i.e. channels) for each communication to be executed by the device based on the corresponding established communication objectives (i.e. applications)";

Spaur further discloses "After analysis is completed, the link selector 64 communicates with protocol stack 26 in order to modify its configuration so that protocol stack 26 generates the correct network address or addresses for the selected network channel(s)." (see Figure 1 column 10 lines 24 – 28), which reads on, "utilizing the selected communication service (i.e. channel) at least for the communication whose communication objective (i.e. application) formed the basis upon which the communication service (i.e. channel) was selected."

Regarding **claim 2**, Spaur discloses the method as set forth in **claim 1**, further comprising:

"assessing the plurality of communication services (i.e. channels) relative to the communication objective (i.e. applications) for each communication before selecting one of the communication services." as disclosed by, "As indicated in FIG. 2A, the application requirements for application A (i.e. communication objective) are obtained in accordance with step 100 and the corresponding operating parameters for each network channel 34a-34n (i.e. communication services) are obtained at step 104. The link selector 64 checks or compares each application requirement with the corresponding parameter, for each such network channel, at step 108" (see Figures 1, 2 and column 10 lines 60 – 66)

Regarding **claim 3**, Spaur discloses the method as set forth in **claim 1**, further comprising:

"assessing a plurality of communication services (i.e. channels) relative to the communication objective (i.e. applications) for each communication during a communication." as disclosed by, "In addition to an initial selection of a network channel (i.e. communication services) when the information transfer is started, the system is able to dynamically adapt to situations where the currently used network channel (i.e. communication service) becomes unavailable or inappropriate and the transfer of information has not yet been completed. Relatedly, the system is able to switch network channels (i.e. communication services) within the course of a particular information transfer or session when it is determined that a more advantageous channel (i.e. communication service) is now available." and "When appropriate or necessary, the link selector 64 can also be used to obtain additional bandwidth from a number of network

channels (i.e. communication services) in order to provide more bandwidth for a given application. The link selector **64** is further available for dynamically changing the current network channel (i.e. communication service) being utilized for a transfer to a different network channel (i.e. communication service), based on changing communication and economic conditions." and "The link selector **64** checks or compares each application requirement (i.e. communication objective) with the corresponding parameter, for each such network channel (i.e. communication service)" (see column 2 lines 9 – 18, column 10 lines 33 – 40, and column 10 lines 63 – 66)

Regarding **claim 4**, Spaur discloses the method as set forth in **claim 1**, further comprising:

"receiving service information (i.e. operating parameters) from the plurality of service providers (inherent in Spaur as the originators of the communication services (i.e. channels)) at the device (10), assessing the communication services (i.e. channels) by comparing the service information (i.e. operating parameters) received from the corresponding service providers at the device." as disclosed by, "The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to the network interfaces **30** for receiving information there-from and making requests thereto. In particular, the link controller/monitor **50** takes responsibility for the control and status of the network channels **34a – 34n**.....The results of any such monitoring process are stored in the communication link database **54**. This database **54** also contains information or data related to the operating parameters (i.e. service information) of the network channels **34a – 34n** (i.e. communication services). These

Art Unit: 2686

include, for example, coverage maps, pricing schedules that may be location and time dependent, schedules of availability of network channels, estimated transfer error rates and the type of channel monitoring to be conducted.” and “The network channel selection apparatus **14** further includes a link selector **64** that functions as the main controller of the system and includes one or more processing units in connection with the analyzing process for selection of one or more network channels through which information is to be transferred for the current application. With regard to conducting the analysis, the link selector **64** utilizes the application requirements for the particular application, together with the operating parameters for the network channels **34a – 34n** (i.e. communication services).” (see Figure 1 and column 9 line 37 – column 10 line 2, column 10 lines 15 – 24)

Regarding **claim 5**, Spaur discloses the method as set forth in **claim 4**, further comprising:

“querying the plurality of service providers (inherent in Spaur as the originators of the communication services (i.e. channels)) for service information (i.e. operating parameters).” as disclosed by, “The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to the network interfaces **30** for receiving information there-from and making requests thereto. In particular, the link controller/monitor **50** takes responsibility for the control and status of the network channels **34a – 34n** (i.e. communication services).” (see column 9 lines 37 – 42)

Regarding **claim 6**, Spaur discloses the method as set forth in **claim 4**, further comprising:

“storing service information (i.e. operating parameters) received from the service providers (inherent in Spaur as the originators of the communication services (i.e. channels)) at the device (10), updating service information (i.e. operating parameters) at the device (10).” as disclosed by, “The link controller/monitor **50** has access to communication link database **54**..... The results of any such monitoring process are stored in the communication link database **54**. This database **54** also contains information or data related to the operating parameters (i.e. service information) of the network channels **34a – 34n** (i.e. communication services). These include, for example, coverage maps, pricing schedules that may be location and time dependent, schedules of availability of network channels, estimated transfer error rates and the type of channel monitoring to be conducted.” and “The network channels **34a – 34n** (i.e. communication services) also have dynamic characteristics or properties associated therewith. That is, during use or operation of a particular network channel, certain parameters (i.e. service information) can be checked to determine whether or not each is meeting its expected operating function. For example, retransmit requests per packet (packet loss), round trip packet travel time (packet latency), variation in interpacket travel time (packet jitter) and signal strength are measured. The results of such measurements are maintained in the communication link database **54**.....” (see column 9 line 55 – column 10 line 2, column 10 lines 3 – 14)

Regarding **claim 7**, Spaur discloses the method as set forth in **claim 1**, further comprising:

“establishing a communication objective (i.e. application) by specifying whether a communication to be executed by the device (10) is a data communication or a voice communication.” as disclosed by, “With reference to FIGS. 2 – 4, additional details of the analysis involving the channel selection process.....FIGS. 2A - 2B illustrate a flow diagram of steps taken in selecting a network channel (i.e. communication service). The description of this flow diagram will be made in the context of a particular application (defined as application A) (i.e. communication objective) that has certain application requirements (i.e. factors or characteristics), as set out in the chart of FIG. 3. In particular, application A requirements include a number of factors with quantitative values. These factors are bandwidth, security, packet loss, packet latency, packet jitter and cost.....As indicated in FIG. 2A, the application requirements for application A are obtained in accordance with step 100” and “These network channels 34a – 34n are characterized by different operating parameter values that relate to the transfer of information. By way of example, these network channels 34a – 34n include a plurality of the following wireless channels: cellular digital packet data (CDPD) over which digital data is able to be sent, satellite; specialized mobile radio (SMR).....spread spectrum featured channels.....FM frequency bands.....digital audio broadcast (DAB) that provides a greater number of radio channels that can be adequately heard by the listener.....”

(see Figures 1 – 3 and column 10 lines 41 – 61, column 6 lines 37 - 51)

Regarding **claim 8**, Spaur discloses the method as set forth in **claim 1**, further comprising:

“establishing communication objectives (i.e. applications) by specifying at least one characteristic (i.e. factor) of a communication to be executed.” is disclosed by, “With reference to FIGS. 2 – 4, additional details of the analysis involving the channel selection process.....FIGS. 2A-2B illustrate a flow diagram of steps taken in selecting a network channel (i.e. communication service). The description of this flow diagram will be made in the context of a particular application (defined as application A) (i.e. communication objective) that has certain application requirements (i.e. factors or characteristics), as set out in the chart of FIG. 3. In particular, application A requirements include a number of factors with quantitative values. These factors are bandwidth, security, packet loss, packet latency, packet jitter and cost.....As indicated in FIG. 2A, the application requirements for application A are obtained in accordance with step 100” (see Figures 1 – 3 and column 10 lines 41 – 61)

Regarding **claim 9**, Spaur discloses the method as set forth in **claim 8**, further comprising:

“assessing communication services (i.e. channels) by determining which communication service (i.e. channel) optimally satisfies the specified characteristics (i.e. factors or requirements) of the communication to be executed.” as disclosed by, “As indicated in FIG. 2A, the application requirements for application A (i.e. communication objective) are obtained in accordance with step 100 and the corresponding operating parameters for each network channel 34a-34n (i.e. communication services) are

obtained at step **104**. The link selector **64** checks or compares each application requirement with the corresponding parameter, for each such network channel (i.e. communication service), at step **108**....In view of the given weightings, the slower, less expensive channel **34b** is deemed to be more suitable for conducting the information transfer associated with application A." (see Figures 1 – 4 and column 10 line 60 – column 12 line 12)

Regarding **claim 10**, Spaur discloses the method as set forth in **claim 1**, further comprising:

"establishing communication objectives (i.e. applications) by weighting at least one characteristic (i.e. requirement or factor) for each communication to be executed." as disclosed by, "At step **128**, the associated weighting vector for each such requirement (i.e. characteristic or factor) for application A is obtained. For example, the associated weighting vector for the bandwidth application requirement (or factor) is 0.25. Each such weighting vector for application A requirements is obtained from the application requirements database **38**." (see Figures 2B, 4 and column 11 line 27 – line 32)

Regarding **claim 11**, Spaur discloses the method as set forth in **claim 10**, further comprising:

"assessing the communication services (i.e. channels) by comparing the weighted characteristics (i.e. requirements or factors) of each communication to be executed to corresponding service characteristics of each of the communication services (i.e. channels)." as disclosed by, "At step **132**, each such weighting vector is

combined with its associated parameter value using a suitability function. The associated parameter value can be a recently measured value for a dynamically changing parameter, such as packet loss, latency and/or jitter. The suitability function defines the relationship among the parameters (i.e. characteristics) for a particular channel and their associated weighting vector.....step **140** is performed by which each of the suitability values that was determined is compared to each other.” (see Figures 3, 4 and column 11 lines 32 – 66)

Regarding **claim 12**, Spaur discloses the method as set forth in **claim 11**, further comprising:

“selecting a communication service (i.e. channel) having service characteristics (i.e. requirements or factors) that most closely correlate with the weighted characteristics of the communication to be executed.” as disclosed by, “With respect to the network channels **34a**, **34b** that were found to be acceptable for selection.....In view of the given weightings, the slower, less expensive channel **34b** is deemed to be more suitable for conducting the information transfer associated with application A.” (see Figures 2B, 3, 4 and column 11 line 47 – column 12 line 12)

Regarding **claim 13**, Spaur discloses a method for selecting communication services (i.e. channels) available to a mobile wireless communication device (10), comprising:

“establishing a communication objective (i.e. application) at the device (10) by identifying a

Art Unit: 2686

characteristic (i.e. factor or requirement) of a communication to be executed by the device (10);" as disclosed by, "With reference to FIGS. 2 – 4, additional details of the analysis involving the channel selection process.....FIGS. 2A - 2B illustrate a flow diagram of steps taken in selecting a network channel (i.e. communication service). The description of this flow diagram will be made in the context of a particular application (defined as application A) (i.e. communication objective) that has certain application requirements (i.e. factors or characteristics), as set out in the chart of FIG. 3. In particular, application A requirements include a number of factors with quantitative values. These factors are bandwidth, security, packet loss, packet latency, packet jitter and cost.....As indicated in FIG. 2A, the application requirements for application A are obtained in accordance with step 100" (see Figures 1 – 3 and column 10 lines 41 – 61)

Spaur discloses, "As indicated in FIG. 2A, the application requirements (i.e. characteristic) for application A (i.e. communication objective) are obtained in accordance with step 100 and the corresponding operating parameters for each network channel 34a-34n (i.e. communication services) are obtained at step 104. The link selector 64 checks or compares each application requirement with the corresponding parameter, for each such network channel, at step 108." which reads on, "assessing a plurality of communication services (i.e. channels) by comparing the identified characteristic (i.e. requirement) of the communication to be executed with a corresponding service characteristic of each of a plurality of communication services (i.e. channels);" (see Figures 1,2 and column 10 lines 60 – 66)

Spaur further discloses, "With respect to the network channels **34a**, **34b** (i.e. communication services) that were found to be acceptable for selection.....In view of the given weightings, the slower, less expensive channel **34b** (i.e. communication service) is deemed to be more suitable for conducting the information transfer associated with application A (i.e. communication objective)." (see Figures 2B, 3, 4 and column 11 line 47 – column 12 line 12) which reads on, "selecting a communication service (i.e. channel) from the plurality of communication services (i.e. channels) having the service characteristic that correlates most closely with the identified characteristic of the communication to be executed by the device (10)."

Regarding **claim 14**, Spaur discloses the method as set forth in **claim 13**, further comprising:

"receiving service information (i.e. operating parameters) from the plurality of communication services at the device, assessing the plurality of communication services (i.e. channels) at the device (10)." as disclosed by, "The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to the network interfaces **30** for receiving information there-from and making requests thereto. In particular, the link controller/monitor **50** takes responsibility for the control and status of the network channels **34a – 34n**.....The results of any such monitoring process are stored in the communication link database **54**. This database **54** also contains information or data related to the operating parameters (i.e. service information) of the network channels **34a – 34n** (i.e. communication services). These include, for example, coverage maps, pricing schedules that may be location and time

Art Unit: 2686

dependent, schedules of availability of network channels, estimated transfer error rates and the type of channel monitoring to be conducted.” and “The network channel selection apparatus **14** further includes a link selector **64** that functions as the main controller of the system and includes one or more processing units in connection with the analyzing process for selection of one or more network channels through which information is to be transferred for the current application. With regard to conducting the analysis, the link selector **64** utilizes the application requirements for the particular application, together with the operating parameters for the network channels **34a – 34n** (i.e. communication services).” (see Figure 1 and column 9 line 37 – column 10 line 2, column 10 lines 15 – 24)

Regarding **claim 15**, Spaur discloses the method as set forth in **claim 14**, further comprising:

“selecting a communication service (i.e. channel) before executing the communication, and selecting a different communication service (i.e. channel) during the communication.” as disclosed by, “With respect to the network channels **34a**, **34b** that were found to be acceptable for selection.....In view of the given weightings, the slower, less expensive channel **34b** is deemed to be more suitable for conducting the information transfer associated with application A.” and “In addition to an initial selection of a network channel (i.e. communication services) when the information transfer is started, the system is able to dynamically adapt to situations where the currently used network channel (i.e. communication service) becomes unavailable or inappropriate and the transfer of information has not yet been completed. Relatedly, the

system is able to switch network channels (i.e. communication services) within the course of a particular information transfer or session when it is determined that a more advantageous channel (i.e. communication service) is now available." and "When appropriate or necessary, the link selector **64** can also be used to obtain additional bandwidth from a number of network channels (i.e. communication services) in order to provide more bandwidth for a given application. The link selector **64** is further available for dynamically changing the current network channel (i.e. communication service) being utilized for a transfer to a different network channel (i.e. communication service), based on changing communication and economic conditions." and "The link selector **64** checks or compares each application requirement (i.e. communication objective) with the corresponding parameter, for each such network channel (i.e. communication service)" (see Figures 2B, 3, 4 and column 11 line 47 – column 12 line 12, column 2 lines 9 – 18, column 10 lines 33 – 40, and column 10 lines 63 – 66)

Regarding **claim 16**, Spaur discloses the method as set forth in **claim 13**, further comprising:

"weighting the one or more identified characteristics (i.e. requirements or factors) of the communication to be executed," as disclosed by, "establishing communication objectives (i.e. applications) by weighting at least one characteristic (i.e. requirement or factor) for each communication to be executed." as disclosed by, "At step **128**, the associated weighting vector for each such requirement (i.e. characteristic or factor) for application A is obtained. For example, the associated weighting vector for the bandwidth application requirement (or factor) is 0.25. Each such weighting vector for

application A requirements is obtained from the application requirements database **38**.”
(see Figures 2B, 4 and column 11 line 27 – line 32)

Spaur further discloses, “At step **132**, each such weighting vector is combined with its associated parameter value using a suitability function. The associated parameter value can be a recently measured value for a dynamically changing parameter, such as packet loss, latency and/or jitter. The suitability function defines the relationship among the parameters (i.e. characteristics) for a particular channel and their associated weighting vector.....step **140** is performed by which each of the suitability values that was determined is compared to each other.” (see Figures 3, 4 and column 11 lines 32 – 66) which reads on, “assessing the communication services (i.e. channels) by comparing the weighted characteristics of the communication (i.e. application) to be executed to similarly weighted corresponding characteristics (i.e. parameter) of each of the communication services (i.e. channels).”

Regarding **claim 17**, Spaur discloses a wireless communication device (10), comprising:

“means (38) for identifying a characteristic (i.e. requirement or factor) of a communication (i.e. application) to be executed by the device; is disclosed by, “....in the context of a particular application (defined as application A) (i.e. communication) that has certain application requirements (i.e. characteristic), as set out in the chart of FIG. 3. In particular, application A requirements include a number of factors with accompanying quantitative values. These factors are bandwidth, security, packet loss, packet latency, packet jitter and cost. The link selector **64** obtains this information from

Art Unit: 2686

the application requirements database **38** through the application requirements controller **42**.....” (see Figures 1 – 4 and column 10 lines 41 – 61)

Spaur discloses, “As indicated in FIG. **2A**, the application requirements for application A are obtained in accordance with step **100** and the corresponding operating parameters for each network channel **34a – 34n** (i.e. communication service) are obtained at step **104**. The link selector **64** checks or compares each application requirement (i.e. characteristic) with the corresponding parameter (i.e. service characteristic), for each such network channel (i.e. communication service).....After all network channels **34a – 34n** (i.e. communication services) have been analyzed.....all channels (i.e. communication services) that have met all the application (i.e. communication) requirements (i.e. characteristics) are deemed to be network channels available for selection.” (see Figures 1, 2 and column 10 line 60 – column 11 line 11) which reads on, “means (64) for assessing a plurality of communication services (i.e. channels) by comparing the identified characteristic (i.e. factor or requirement) of the communication (i.e. application) to be executed with corresponding service characteristics (i.e. operating parameter) of each of a plurality of communication services (i.e. channels);

Spaur further discloses, “The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to network interfaces **30** for receiving information.....takes responsibility for control and status of network channels **34a – 34n**.....has access to a communication link database **54**.....this database **54** also contains information or data related to operating parameters (i.e.

Art Unit: 2686

service characteristic) of the network channels **34a – 34n**....The network channel selection apparatus **14** further includes a link selector **64** that functions as the main controller of the system and includes one or more processing units in connection with the analyzing process for the selection of one or more network channels (i.e. communication services) through which information is to be transferred for the current application (i.e. communication objective). With regard to conducting the analysis, the link selector **64** utilizes the application requirements (i.e. characteristics) for the particular application (i.e. communication objective), together with the operating parameters (i.e. service information) for the network channels **34a – 34n**....” (see Figure 1 and column 9 line 37 – column 10 line 28) which reads on, “means for selecting a communication service (i.e. channel) from the plurality of communication services (i.e. channels) having the service characteristic (i.e. operating parameter) that correlates most closely with the identified characteristic (i.e. requirement) of the communication (i.e. application) to be executed by the device.”

Regarding **claim 18**, Spaur discloses the method as set forth in **claim 17**, further comprising:

“means (50) for receiving service information (i.e. operating parameters) from the plurality of communication services at the device (10).” as disclosed by, “The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to the network interfaces **30** for receiving information there-from and making requests thereto. In particular, the link controller/monitor **50** takes

responsibility for the control and status of the network channels **34a – 34n** (i.e. communication services)." (see Figure 1 and column 9 lines 37 – 42)

Regarding **claim 19**, Spaur discloses the method as set forth in **claim 18**, further comprising:

"means (50) for requesting service information (i.e. operating parameters) from the communication services (i.e. channels)." which is disclosed by, "The network channel selection apparatus **14** also includes a link controller/monitor **50** that is operatively connected to the network interfaces **30** for receiving information there-from and making requests thereto. In particular, the link controller/monitor **50** takes responsibility for the control and status of the network channels **34a – 34n** (i.e. communication services)." (see Figure 1 and column 9 lines 37 – 42)

Regarding **claim 20**, Spaur discloses the method as set forth in **claim 19**, further comprising:

"means (64) for weighting the identified characteristic (i.e. requirement) of the communication (i.e. application) to be executed,

means (64) for comparing the weighted characteristics of the communication (i.e. application) to be executed to corresponding service characteristics (i.e. parameter) of each communication service (i.e. channel)." are disclosed by "The network channel selection apparatus **14** further includes a link selector **64** that functions as the main controller of the system and includes one or more processing units in connection with the analyzing process for selection of one or more network channels through which information is to be transferred for the current application. With regard to conducting the

Art Unit: 2686

analysis, the link selector 64 utilizes the application requirements for the particular application, together with the operating parameters for the network channels 34a – 34n (i.e. communication services)." and "With reference to FIG. 4 as well, the description will continue regarding the operation of the link selector 64..... the associated weighting vector for each such requirement (i.e. characteristic) for application A (i.e. communication objective).....each such weighting vector is combined with its associated parameter (i.e. service characteristic) value using a suitability function.....is performed by which each of the suitability values that was determined is compared to each other." (see Figure 1 – 4 and column 10 lines 15 – 24, column 11 lines 12 – 66)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simeon Marc Balban whose telephone number is (703) 305-8731. The examiner can normally be reached on M - F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D Banks - Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Marsha D Banks-Harold
MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

MB